

ABSTRACT OF THE DISCLOSURE

An organic-inorganic composite material is formed by polycondensating a metal alkoxide through hydrolysis until the unreacted metal alkoxide is reduced to 3 vol.% or less, and mixing it with an organic polymer. The composite material has a light transmittance of at least 90% per 10 μ m material thickness for light of 600 to 1000nm. The metal element content of the composite material is preferably 0.1 to 46 wt.%, more preferably 5 to 37 wt.%. By laminating layers of such organic-inorganic composite materials having respective different compositions, the resulting laminate has a concentration gradient wherein the metal element content increases or decreases monotonously, or increases and decreases in succession, from one side to the other side of the laminate. The resulting refractive index varies opposite the metal element content. The material can be used for an optical waveguide or a light transmission structure.

USPS EXPRESS MAIL
EV 415 086 159 US
MARCH 01 2004